the sectional plane in the top surface of said first layer has surface irregularity from 10 nm to 20 μm in period and 10 nm to 10 μm in height, and the top surface of said second layer has root mean square surface roughness (RMS) of less than 10 nm.

7. The epitaxial substrate according to claim 6, wherein (01-12) plane of said sapphire substrate is inclined by an off-angle α of±5 degrees except for 0 degree.

8. The epitaxial substrate according to claim 6, wherein said first layer is made of aluminum gallium nitride AlxGa1-xN (0<x<1).

9. The epitaxial substrate according to claim 6, wherein said second layer is made of gallium nitride.

10. The epitaxial substrate according to claim 6 that has a semiconductor device structure on said second layer.

11. A semiconductor device that uses the epitaxial substrate according to claim 5.

12. A method for manufacturing the epitaxial substrate according to claim 6, which comprises the steps of:

growing the first layer on said sapphire substrate so that the lower surface of said first layer receives a strain caused by lattice mismatch directly or indirectly from said sapphire substrate, thereby to form the sectional plane in the top surface of said first layer with surface irregularity from 10 nm to 20 μm in period and from 10 nm to 10 μm in height; and

growing said second layer on the first layer, that are carried out in this order.

13. A method for manufacturing the epitaxial substrate according to claim 6, which comprises the steps of:

growing said first layer on the sapphire substrate having the principal plane in the R plane;

applying post-processing to form the sectional plane in the top surface of said first layer with surface irregularity from 10 nm to 20 μm in period and from 10 nm to 10 μm in height; and

growing said second layer on the first layer, that are carried out in this order.

14. A sapphire substrate of which principal plane is inclined from (01-12) plane toward (0001) plane by an off-angle α that is in a range of $-0.75°<\alpha<-0.25°$.

15. A sapphire substrate of which principal plane is inclined from (01-12) plane toward (0001) plane by an off-angle α and, at the same time, inclined by an off-angle of β in a direction perpendicular to this direction, the angles being in ranges of $-0.75°<\alpha<-0.25°$ and $0°<|\beta\uparrow|<0.05°$.

16. A light emitting device comprising;

the sapphire substrate according to claim 14 or 15; and

a light emitting device structure that is provided on the principal plane of said sapphire substrate, made of nitride semiconductor represented by AlxGa1 x yInyN (0<x, 0<y, x+y<1) and includes at least an n-type cladding layer, an active layer and a p-type cladding layer.

17. The light emitting device according to claim 16, wherein the thickness of said light emitting device structure is in a range from 0.5 μm to 8 μm.

18. A semiconductor device that uses the sapphire substrate according to claim 14 or 15.

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